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Part IV

Department of Transportation

Research and Special Programs
Administration

49 CFR Part 107, et al.

Hazardous Materials Regulations; Editorial
and Technical Revisions; Final Rule

HM-181

DEPARTMENT OF TRANSPORTATION

49 CFR Parts 107, 171, 172, 173, 174, 176, 177, 178, 179, and 180

[Docket Nos. HM-181, HM-189, Amdt. Nos. 107-23, 171-111, 172-123, 173-224, 174-68, 176-30, 177-78, 178-97, 179-45, and 180-3]

Editorial and Technical Revisions

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: This final rule corrects editorial errors and makes minor regulatory changes to title 49 of the Code of Federal Regulations (CFR), parts 100-199, revised as of December 31, 1991. The 1991 version contained provisions of a final rule issued on December 21, 1990 and revised on December 20, 1991 which comprehensively amended the Hazardous Materials Regulations (HMR) with respect to hazard communication, classification and packaging requirements. The intended effect of this final rule is to promote accuracy through editorial and technical corrections to the CFR. This rule will not impose any new requirements on persons subject to the HMR.

DATES: Effective: October 1, 1992.

Applicability: Because of the transition period provisions in 49 CFR 171.14, the provisions of § 172.101(l)(1)(ii), which allows up to one year after a change in the Hazardous Materials Table (HMT) to use up stocks of preprinted shipping papers and to ship packages that were marked prior to the change, do not apply to these amendments.

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SUPPLEMENTARY INFORMATION:**Background**

The Research and Special Programs Administration (RSPA) published a final rule on December 21, 1990 [Docket HM-181; 55 FR 52402] which comprehensively revised the Hazardous Materials Regulations (HMR; 49 CFR parts 171 to 180) with respect to hazard communication, classification, and packaging requirements based on the UN Recommendations. A document responding to petitions for

reconsideration and containing editorial and substantive revisions to the final rule was published on December 20, 1991 [56 FR 66124]. That document included revisions to a January 3, 1991 final rule under HM-142A and to the 1990 49 CFR parts 106-180, under HM-189.

The 1991 49 CFR parts 100-199 incorporated the revised final rule issued December 20, 1991 as well as all other revisions published prior to December 31, 1991. This document makes editorial and technical corrections to the 1991 49 CFR parts 107-180.

This document does not include revisions to requirements for infectious substances or regulated medical waste. A separate rulemaking is forthcoming which will respond to petitions for reconsideration concerning regulated medical waste and will address other issues concerning infectious substances and regulated medical waste.

These amendments in Docket HM-181 clarify and revise certain provisions of the final rule in response to petitions for reconsideration. These amendments in Docket HM-189 clarify and correct other provisions of the HMR. In both cases, these changes impose no new regulatory burden on any person and provide relief from existing requirements. Notice and public comment are unnecessary and good cause exists to make these amendments effective less than 30 days following publication.

Regulatory Review Comments

In response to the President's January 28, 1992, announcement of a federal regulatory review, DOT published a notice on February 7, 1992 [57 FR 4744] soliciting public comments on the Department's regulatory programs. In response to that notice, RSPA received numerous comments to the HMR as revised under Docket HM-181. All comments to the regulatory review have been considered in preparing this document. Based on the merit of comments received during the regulatory review, RSPA is revising certain provisions of the regulations. These revisions are discussed in detail in the section-by-section review.

Section-by-Section Review**Part 107: Hazardous Materials Program Procedures**

Section 107.315. Paragraph (c) is revised and paragraph (d) is added to set forth different procedures for payment of civil penalties, based on the amount of the penalty.

Part 171: General Information, Regulations and Definitions

Section 171.8. The definition for "NRC (non-reusable container)" was inadvertently removed in the final rule. Because a specification DOT 39 cylinder is non-reusable, and because other non-reusable packagings may be authorized in the future, RSPA is reinstating this definition.

The definition for "bulk packaging" is revised to clarify that for solids, the packaging must have a maximum net mass of greater than 400 kg (882 pounds) and a maximum capacity greater than 450 L (119 gallons). Therefore, a packaging having a maximum net mass of greater than 882 pounds must also have a maximum capacity greater than 119 gallons to be considered a bulk packaging for solids.

The definition for "non-bulk packaging" is revised to clarify that for liquids, the maximum capacity of the packaging must be less than 450 L (119 gallons) and for solids the maximum net mass of the packaging must be less than 400 kg or a maximum capacity of less than 450 L.

In addition, the definition for "oxidizer" is revised to correct a section reference to "§ 173.127" and the second definition of oxidizer is removed.

Section 171.12. Paragraph (b)(7) is revised for clarity.

Section 171.12a. Paragraph (b) is revised to clarify provisions for shipments of hazardous materials transported to or through the United States which have been prepared in accordance with Canadian regulations.

Section 171.14. Paragraphs (a) and (b) are revised to clarify the applicable transition dates for the final rule as revised December 20, 1991 and by this document. Language is added to paragraph (a) clarifying that other rules issued during the transition periods may implement requirements earlier or later than the transition dates.

In paragraph (c)(2), RSPA is permitting the use, for highway transportation only, until October 1, 2001, of pre-October 1991 placards or placards specified in the December 21, 1990 final rule (which contains minor deviations from the placards adopted in the December 20, 1991 rule) in place of the placards adopted in the December 20, 1991 rule. This extended conversion period applies to highway transportation only and does not include intermodal shipments. The extension will minimize the impact of converting to the new placarding system and responds to petitions from motor carriers.

Part 172: Hazardous Materials Table, Special Provisions, Hazardous Materials Communications Requirements and Emergency Response Information Requirements

Section 172.101: The Hazardous Materials Table (The Table). The Table is amended as follows:

- a. The entries "Azido hydroxy tetrazole (mercury and silver salts)" and "Dinitroglycoluril" are removed. The entry "Sodium hydrogen sulfate, solid" is removed because the material in its solid state does not meet any hazard class definition.
- b. The "Asbestos" entries referencing blue or brown asbestos and white asbestos are removed and a generic "Asbestos" entry is added for domestic transportation only, which will allow the use of either the domestic shipping name or the international shipping name for the transportation of all forms of asbestos in the US.
- c. The entry "Acrolein, inhibited" is corrected by removing the "+" in Column (1).
- d. The entry "Aerosols, poison, each not exceeding 1 L capacity" is revised by removing Special Provision 3 from Column (7) because the provision is not consistent with the hazard class and only Division 6.1 Packing Group III materials are authorized in aerosols.
- e. The entry "Aircraft hydraulic power unit fuel tank (containing a mixture of anhydrous hydrazine and monomethyl hydrazine (M86 fuel))" is revised by removing the "D" in Column (1) and revising the identification number in Column (4) to read "UN 3165" for consistency with international requirements.
- f. The entry "Alcoholic beverages" is revised by adding a Packing Group II entry in Column (5). This addition is necessary because many alcoholic beverages fall within the Packing Group II level for Class 3.
- g. The entry "Alkali metal alloys" is revised by adding Special Provision B48 in Column (7) to except portable tanks in sodium metal service from hydrostatic testing requirements.
- h. The domestic entry "Ammonia anhydrous liquefied or Ammonia solutions" is revised by adding commas to read: "Ammonia, anhydrous, liquefied or Ammonia solutions".
- i. The entry "Ammonium nitrate, liquid (hot concentrated solution)" is revised by removing Special Provision B17 in Column (7). The purpose of this change is to remove the requirement that bulk packagings must be made from aluminum.
- j. The entry "Barium peroxide" is corrected by removing the "2" in Column (8C) and replacing it with "242".
- k. The entry "Blue asbestos (Crocidolite) or Brown asbestos (amosite, myosrite)" is revised by adding an "I" in Column (1).
- l. In Column (9A), for the entry "Bombs, with bursting charge" in Division 1.1F, the spelling of "Forbidden" is corrected.
- m. Based on the merit of petitions, Special Provision 19 is added in Column (7) for "Butane or Butane mixtures" and "Butylene" to permit the use of the identification number "UN1075" as an alternative to the identification number assigned, as long as the identification number is consistent on package markings, shipping papers and emergency response information.
- n. The entries "Carbon dioxide and nitrous oxide mixtures" and "Carbon monoxide" are corrected by revising Column (8C) of each entry to read "314, 315".
- o. The entry for "Combustible liquid, n.o.s." is moved to its proper alphabetical sequence.
- p. The entries "Corrosive solids, self heating, n.o.s." and "Corrosive solids, which in contact with water emit flammable gases, n.o.s." are revised by removing "241" from Column (8C) and replacing it with "243". This revision is necessary in order to provide packagings that are equivalent to other materials in the same hazard classes.
- q. The entry "Diethylaminopropylamine" is revised by removing the "AW" in Column (1) to correspond with § 173.154 for consistency.
- r. The entry "Dimethylhydrazine, unsymmetrical" is revised by removing Special Provision B58 and adding Special Provision B74 in Column (7) to provide consistency with requirements imposed on other materials poisonous by inhalation in Hazard Zone B.
- s. The entry "Fish meal or Fish scrap stabilized" is editorially revised by changing the proper shipping name to read "Fish meal, stabilized or Fish scrap, stabilized" and by removing Special Provision A1 from Column (7).
- t. The entry for "Fusee" is moved to its proper alphabetical sequence.
- u. The entries "Hydrochloric acid, solution" and "Sulfuric acid" are revised by changing Special Provision B2 to B3 in Column (7) to prohibit the use of DOT 57 portable tanks. Special Provision B2 was amended in the December 20, 1991 revised final rule to permit the use of DOT 57 portable tanks, and Special Provision B3 was added which prohibited the use of these portable tanks. In the revised final rule, for hydrochloric acid and sulfuric acid, Special Provision B3 should have replaced B2 to reflect this prohibition. This is consistent with pre-HM-181 requirements which authorized DOT 57 portable tanks only for cleaning compounds, not hydrochloric acid solutions or sulfuric acid.
- v. Special Provision B35 is added in Column (7) for the entry "Hydrogen cyanide, anhydrous, stabilized" to authorize an alternative shipping name "Hydrocyanic acid" to be marked on a tank car.
- w. The entry for "Hydrogen peroxide, aqueous solutions", containing between 40% and 60% hydrogen peroxide, is editorially revised by correcting Special Provision "BB53" to read "B53".
- x. The entry "Hydroxylamine sulfate" is revised by removing the "AW" in Column (1) to correspond with § 173.154 for consistency.
- y. A cross reference "Isobutane or Isobutane mixtures see also Petroleum gases, liquefied" is added to clarify that either name may be used as a proper shipping name. In addition, Special Provision 19 is added in Column (7) for "Isobutane" to permit the use of the identification number "UN1075", as an alternative to the identification number assigned as long as the identification number is consistent on package markings, shipping papers and emergency response information.
- z. The entry "Isophoronediamine" is revised by removing the "AW" in Column (1) to correspond with § 173.154 for consistency.
- aa. The entry "Lead compounds, soluble, n.o.s." is editorially revised by changing the packing group in Column (5) to read "III" and by revising Column (8) to read "KEEP AWAY FROM FOOD".
- bb. The entry "Metal powders, flammable, n.o.s." in Packing Group III is editorially revised to correct the bulk packaging authorization in Column (8C) to read "240".
- cc. The entry "Methanol or Methyl alcohol" is editorially revised to correct the bulk packaging authorization in Column (8C) to read "242".
- dd. The entry "Methylhydrazine" is editorially revised to correct the non-bulk packaging authorization in Column (8B) to read "226".
- ee. The entries "Nitrating acid mixtures with not more than 50 per cent nitric acid" and "Nitrating acid mixtures with 50 per cent or more nitric acid" are revised by adding Special Provision B47 in Column (7).
- ff. The entry "PCB see Polychlorinated biphenyls" is revised by removing the "D" in Column 1 and adding "AW" for

consistency with the referenced entry "Polychlorinated biphenyls".

gg. The entry "Phosphorous pentasulfide" is corrected, based on the merit of a petition requesting consistency with materials of similar hazards, by revising the bulk packaging authorization in Column (8C) to read "242".

hh. Special Provision 19 is added in Column (7) for "Propane" to permit the use of the identification number "UN1075" as an alternative to the identification number assigned as long as the identification number is consistent on package markings, shipping papers and emergency response information.

ii. The entry "1,2-Propylenediamine" is revised to correctly assign Packing Group II and reference the non-bulk packaging authorization "202". These corrections are consistent with UN provisions.

jj. The entry "Silicon tetrachloride" is revised by removing Special Provision N41 from Column (7) because this material does not pose an additional transportation hazard when packaged in certain metal packagings.

kk. In Column (7), for the entry "Sodium", Special Provision B48 is added to except sodium metal in portable tanks from hydrostatic testing requirements, and Special Provision T28 is removed and replaced with Special Provision T46 in appropriate alpha-numerical order.

ll. The entry "Sodium bisulfate, solid or solution; see Sodium hydrogen sulfate, solid, or solution" is revised to read "Sodium bisulfate, solution, see Sodium hydrogen sulfate, solution". RSPA has determined that this material in its solid state does not meet the definition of a Class 8 PG III material.

mm. The entry "Substances which in contact with water emit flammable gases, solid, n.o.s." in Packing Group III is editorially revised by changing the bulk packaging authorization in Column 8(C) from "242" to "241".

nn. The entry "Sulfuric acid, fuming less than 30 percent free sulfur trioxide" is revised by removing "POISON" as a subsidiary hazard label in Column (6) because this material is not poisonous below their concentration.

oo. Special Provision B13 is added in Column (7) for the entry "Tars, liquid, including road asphalt and oils, bitumen and cut backs" in both Packing Groups II and III to authorize certain non-specification bulk packagings.

pp. The entry "Titanium tetrachloride" is revised, based on the merit of petitions, by adding Special Provision B77 in Column (7), which authorizes other approved packagings.

qq. The entry (mono-(Trichloro) tetra-) monopotassium " " " " is revised by removing the parenthesis preceding the first "mono".

rr. The entry "Vanadium trichloride" is revised by removing the "AW" in Column (1) to correspond with § 173.154 for consistency.

ss. Based on the merits of a petition, the entry "Vinyl chloride" with identification number "NA1088" and Special Provision 21 is added for domestic transportation only. Addition of this entry allows "Vinyl chloride" to be transported with or without an inhibitor, provided the requirements of Special Provision 21 are satisfied. This entry is separate from the entry for "Vinyl chloride, inhibited".

tt. The entry "White asbestos (chrysotile, actinolite, anthophyllite, tremolite)" is editorially revised to indicate that "(chrysotile, actinolite, anthophyllite, tremolite)" are not part of the proper shipping name.

The Air Transport Association requested that RSPA add an entry to the Table "Cosmetics, n.o.s., containing flammable aerosol and/or non-flammable aerosol and/or flammable liquid in small inner packagings" for consistency with the ICAO Technical Instructions. However, RSPA does not believe that maintaining consistency with ICAO is adequate justification for adopting piecemeal revisions, such as this entry. RSPA already offers limited quantity and consumer commodity exceptions for flammable liquids and aerosols. International consistency could be attained through a more fundamental approach, such as adopting consumer commodity provisions in international regulations.

Section 172.101 Appendix. In paragraph 2. of the appendix to § 172.101, the section reference is editorially revised to read "§ 172.101(c)(8)".

Section 172.102. Special Provision 4 is corrected to reference "Hazard Zone D". Special Provision 19 is added to allow the use of either the specific identification number assigned to a material or "UN1075" (the number assigned to "Petroleum gases, liquefied") for liquefied petroleum gases such as propane, butane, isobutane and butylene. Special Provision 21 is added to provide guidance as to when vinyl chloride that does not contain an inhibitor may be transported using the proper shipping name "Vinyl chloride".

Based on the merit of a petition, Special Provisions B2, B3, B4, and B10 are revised to prohibit the use of MC 300, MC 301, MC 302, MC 303, and MC 305 cargo tanks. This revision is consistent with the prohibited use of an

MC 306 cargo tank. A new Special Provision B13 is added to provide relief from certain packaging requirements for liquid asphalts having a flash point below 37.8°C (100°F).

RSPA received several requests to revise Special Provision B14. RSPA is revising B14 to clarify that the requirement for tank and jacket protective coatings applies only to new construction or repair and is not a retrofit requirement. Other revisions to B14 are beyond the scope of this document and may be addressed in a future rulemaking.

The last two sentences in Special Provision B26 are revised for clarity. RSPA is adding Special Provision B35, based on the merits of a petition, to allow the alternative marking "Hydrocyanic acid, liquefied" on tank cars containing hydrogen cyanide. A new Special Provision B47 reinstates a provision of the pre-HM-181 regulations, which permits a safety relief device with a start-to-discharge pressure setting of 310 kPa (45 psig) for nitrating acid mixtures. Special Provision B69 is revised to include covered motor vehicles and portable tanks as authorized bulk packagings for solid sodium cyanide. Several "T" notes are editorially revised to facilitate use of the IM Tank Configurations.

Section 172.203. The phrase "or class entry" is added in paragraph (m)(1). The effect of this change is that the word "poison" does not need to be annotated in association with the basic shipping description if the hazard class entry indicates the material is a poison (i.e., a Division 6.1 material).

Section 172.312. The depiction of the ISO Standard orientation marking in the December 20, 1991 final rule displays more than the minimal ISO standard mark, which does not have a rectangular border surrounding the arrows. Therefore, a sentence is added in paragraph (a)(2) to clarify that a rectangular border around the orientation arrows is optional.

Section 172.330. The paragraph (a) heading is revised to include "identification number".

Section 172.405. The introductory text in paragraph (a) is revised to clarify that when use of text indicating a hazard is optional, this option applies to both primary and subsidiary labels.

Section 172.422. The correct SPONTANEOUSLY COMBUSTIBLE label is published, which indicates that the red color in the lower half of the label extends to the dotted line border.

Section 172.504. Paragraph (c) is revised to allow the 454 kg (1,001 pounds) placarding exception for any

material covered in Table 2 other than those materials which are poisonous by inhalation. This will eliminate the requirement to placard for other Table 2 hazardous materials which are on a transport vehicle, but have an aggregate gross weight of less than 454 kg (1,001 pounds). For example, as prescribed in § 172.505(a), any material which is poisonous by inhalation and also meets another hazard class must be placarded in accordance with § 172.504, regardless of the aggregate gross weight. This revision modifies the legal interpretation to the Illinois Department of Transportation issued by RSPA's office of the Chief Counsel, Int. No. 88-1-RSPA issued on February 2, 1987 and published in the Federal Register on February 26, 1990 [55 FR 6758].

Paragraph (f)(1) is revised to require only the placard having the lowest division number on a transport vehicle, rail car, freight container or unit load device that contains more than one explosives division. Paragraph (f)(4) is revised to except OXIDIZER placards on transport equipment which are placarded for Division 1.1 and 1.2 explosives. A new paragraph (f)(10) is added to permit the use of a POISON placard in place of a KEEP AWAY FROM FOOD placard.

Comments received from shippers and carriers and their representatives following publication of the final rule and during the regulatory review stated that the Class 9 placard is unnecessary and unduly burdensome in domestic transportation. RSPA agrees with these comments and a domestic exception from the Class 9 placarding requirements is added as paragraph (f)(9). Under this exception, Class 9 placards are not required for domestic transportation. Bulk packages must be marked on both sides and both ends with the appropriate identification number displayed on orange panels or white-square-on-point display configurations, as specified in § 172.336(b). This permits continued use of a method of communication that has been required for ORM materials since 1980.

Section 172.505. The revision to paragraph (a) is the December 20, 1991 revised final rule was intended to mean that duplication of the POISON or POISON GAS placards to indicate a subsidiary poisonous-by-inhalation hazard was not necessary if POISON or POISON GAS placards were already displayed. The wording of the revision unintentionally raised the question of whether the exception in § 172.504(c)(1) might apply to a material meeting another hazard class definition in

addition to poisonous by inhalation. Paragraph (a) is revised to clarify that the placarding exception in § 172.504(c)(1) is not applicable to dual hazard materials which are subject to § 172.505 (e.g., a material poisonous by inhalation).

Section 172.510. Paragraph (e) is revised for consistency with new terminology and a section reference is corrected in paragraph (c).

Section 172.519. Paragraph (b)(3) is revised to require the use of the text "OXYGEN" on OXYGEN placards, for consistency with the OXYGEN labeling requirement.

Section 172.526. In paragraph (a)(4), the section reference "§ 172.540", which was inadvertently omitted from the list of placard specification sections, is added in appropriate numerical sequence.

Section 172.560. Paragraph (b) is revised to clarify requirements for the Class 9 placard.

Part 173: Shippers, General Requirements for Shipments and Packagings

Section 173.2. The section reference for the entry "Oxidizer" is corrected to read "§ 173.127".

Section 173.22. In paragraph (a)(4), a section reference "§ 178.2(d)" is corrected to read "§ 178.2(c)".

Section 173.23. paragraph (c) is corrected by removing "i.e." and replacing it with "e.g."

Section 173.24a. Paragraph (c)(1)(iii) is revised to provide an exception to the requirement for corrosive materials in bottles to be further packed in inner receptacles and outer packagings if the corrosive materials have been reclassified as ORM-D.

Section 173.28. Provisions for the reuse of non-reusable containers (NRC) are reinstated as a new paragraph (e).

Section 173.31. Two references are editorially revised in Notes I and N following Retest Table I in paragraph (c).

Section 173.32. Paragraphs (a)(1), (a)(3), (a)(5) and (c) are editorially revised to correct section references and to provide clarity.

Section 173.32c. A section reference in paragraph (f) is revised to correct a printing error. A new paragraph (r) is added to correct a previous oversight. The December 21, 1990 final rule relocated the provisions contained in the IM Tank Table, which was a separate publication, into the HMR. In the IM Tank Table, hazardous materials authorized for transport in a tank having bottom outlets with serial mounted closures also were permitted to be transported in a tank having no bottom

outlets or having bottom outlets with serial mounted closures of a comparable configuration. This authorization was inadvertently omitted in the final rule. This oversight is corrected herein; the provision is added in new paragraph (r).

Section 173.33. Paragraph (c)(1)(iii) is revised to correct a section reference and the phrase "Poison B" in paragraphs (c)(5) and (e) is replaced with UN hazard class terminology.

Section 173.115. The definition for a Division 2.2 (nonflammable) gas is revised to clarify that the definition includes absolute pressure greater than 280 kPa (41 psia) at 20°C (68°F).

Section 173.120. Paragraphs (b)(1) and (b)(2) are editorially revised by removing the phrase "except Class 9". This amendment is consistent with the revision of the Class 9 definition in this document, which clarifies that a material which meets the definition of another hazard class, but also falls within one of the Class 9 criteria (e.g., hazardous substance), does not meet the definition of Class 9. Therefore, a Class 3 liquid which also meets the definition of a hazardous substance may be reclassified as a combustible liquid or shipped as a limited quantity.

Section 173.124. Paragraph (a)(3)(ii) is revised to correctly reference the burning rate test contained in appendix E to part 173.

Section 173.133. The second entry in Column 4 of the paragraph (a)(1) table is corrected to indicate the correct toxicity limits, and the table in paragraph (a)(2)(i) is revised to include Packing Group II and III materials. In addition, in paragraph (a)(2)(ii), the figure 1 Inhalation Toxicity chart is republished because the Figure 1 appearing in the 1991 CFR is not the correct Figure 1 published in the December 20, 1991 revised final rule.

Section 173.140. The definition of Class 9 is editorially corrected and reprinted in its entirety, including the amendments issued under Docket HM-198A, for convenience of the reader.

Section 173.150. Paragraph (a) is editorially revised for the same reasons as discussed under the review of § 173.120 and to provide clarity.

Section 173.154. Several commenters suggested that the provisions of § 173.154(d) be revised to except from the HMR certain materials corrosive only to steel or aluminum when packaged in containers constructed of materials compatible with lading. RSPA agrees, and the provisions of paragraph (d) have been revised to make it clear that (1) materials corrosive only to aluminum are not regulated when transported by rail or highway in bulk or

non-bulk packagings; and (2) materials corrosive only to steel are not regulated when transported by rail or highway in bulk packagings. These exceptions apply only if the offeror has determined that the packaging is compatible with the lading, as specified in § 173.24(e).

Section 173.156. In the December 20, 1991 revised final rule, RSPA accepted two petitions to allow domestic-only shipments of ORM-D materials unitized in stretch-wrapped floor display stands or wire-bound shrouded pallets to exceed the 30-kg gross weight limit. RSPA did not address the petitioners' request that, based on current industry practices, this exception be broadened to apply to shipments going directly from a manufacturer to a distribution center or retail outlet or returning. Commenters to the regulatory review asked RSPA to revise § 173.156 to remove the 66-pound weight limit on ORM-Ds to allow shipment of display packs without shipping papers. Alternatively, commenters suggested RSPA should remove any limitation on exclusive use by common carrier and allow transportation by highway carrier from any point of origin to any point of destination. RSPA already had removed the weight limit for ORM-D but not limited quantity shipments. RSPA disagrees with petitions requesting that either unitized ORM-D shipments be allowed to be transported by common carrier not under exclusive use or that RSPA waive the 30-kg (66-pound) gross weight limit for limited quantity shipments. RSPA believes safety could be compromised by the intermixing of shipments of this type with LTL traffic normally handled by common carriers. Therefore, RSPA will not permit non-exclusive use by common carrier, nor will it lift the 30-kg (66-pound) weight limit on limited quantity shipments. However, RSPA is broadening points of origin and destination to include manufacturers and return shipments. RSPA is revising paragraph (b) to include these types of activities in the exception for unitized shipments and clarifies that a box would be an acceptable overpack.

Section 173.159. UN standard 1D plywood drums, 1G fiber drums, 1H2 plastic drums, 3H2 plastic jerrycans, and 4H2 solid plastic boxes are added as authorized packagings in new paragraphs (b)(3) through (b)(6) to correct an earlier oversight. In addition, the word "articles" is corrected to read "materials" in paragraph (c).

Section 173.193. Paragraph (d) is revised to except methyl bromide from the requirements of § 173.40.

Section 173.211. Paragraph (c) is editorially revised to correct

authorizations for 6HA1 and 6HA2 composite packagings.

Section 173.225. Authorization for use of DOT 412 cargo tanks has been added in paragraph (e)(2), and paragraphs (e)(3) and (e)(4) have been restructured to more accurately reflect their applicability.

Section 173.227. The introductory text in paragraph (b) is editorially revised to specify that a 1H1 plastic drum or 6HA1 composite packaging must be further packed in a 1A2 or 1H2 drum.

Section 173.244. The section heading is revised by adding a reference to Division 4.3 (dangerous when wet) materials.

Sections 173.302 and 173.304. Paragraph (a)(5)(iii) in § 173.302 is editorially revised to correct reference to Federal Specification RR-C-901c. In addition, paragraph (h) in § 173.302 and paragraph (g) in § 173.304 are revised to limit conformance with § 173.40 Division 2.3 materials in Hazard Zone A.

Section 173.304. In paragraph (f)(1), references to DOT Specification fiberboard and wooden boxes are removed and replaced with an authorization for use of strong, tight packagings.

Section 173.314. In the December 20, 1991 revised final rule, RSPA amended § 173.24b(a)(3) to apply a five percent outage requirement to all materials poisonous by inhalation. RSPA subsequently has received several inquiries concerning the applicability of the five percent outage requirement for anhydrous ammonia. One company stated that a five percent outage requirement or anhydrous ammonia would be inconsistent with RSPA's earlier position, noting that:

[t]hroughout the rulemaking proceeding, DOT has clearly stated their intention to improve the hazard communication for anhydrous ammonia with the "Inhalation Hazard" making requirement, not to increase the transportation costs of the product.

RSPA initially proposed classification criteria for poisonous gases in Notice 87-4 (May 5, 1987; 52 FR 16482) which resulted in significant controversy over the proposed reclassification of anhydrous ammonia from a Division 2.2 (non-flammable gas) to a Division 2.3 (poisonous gas) material. Commenters to this proposal stated that the reclassification would impose severe economic constraints and impose unwarranted increased transportation charges and insurance rates. Based on a regulatory analysis, RSPA eventually withdrew its proposal to reclassify anhydrous ammonia and retained the Division 2.2 (non-flammable gas)

classification for domestic transportation.

In other previous rules, RSPA has recognized the need for improved packagings for materials posing acute health risks, such as anhydrous ammonia and other materials poisonous by inhalation. Such packaging improvements would include crashworthiness (packaging survivability) in accidents. In addition, RSPA and the Federal Railroad Administration (FRA) consider it necessary to require sufficient outage in tank cars so that, even under extreme but credible scenarios, there will be no release of a hazardous material from the expansion of the lading.

In response to the recent inquiries, RSPA and FRA have calculated the permissible filling limits for anhydrous ammonia under both the pre-HM-181 regulations and the new requirements. Based on these calculations, RSPA is authorizing a two percent outage calculated at the reference temperature of 41°C for insulated tank cars and 46°C for non-insulated tank cars to assure a level of safety commensurate with public interest. For example, the revised requirements in paragraph (c) will allow 4,870 pounds more for an insulated tank car and 4,793 pounds more for a non-insulated tank car for a hypothetical tank capacity of 33,625 gallons loaded in the summer. Prior to publication of the final rule, the basis for the filling limits was developed from limited empirical data. In developing provisions for filling limits in the Docket HM-181 final rule, RSPA considered seasonal factors because of the broad temperature ranges in the United States. For example, in the months of November through March, shippers may load anhydrous ammonia in non-insulated tank cars so that the tanks would become "liquid full" at about 35.5°C (96°F). For this reason, the provisions in revised paragraph (c) will not allow as much anhydrous ammonia in tank cars filled in the winter months as with previously authorized under the pre-HM-181 regulations. RSPA also is changing the filling limits for other Division 2.3 Zone D materials consistent with those limits for anhydrous ammonia.

Recent inquiries did not address the filling limits of anhydrous ammonia in DOT 106 multi-unit tank cars. Calculations indicate that even at a five percent outage, more anhydrous ammonia is allowed in the multi-unit tank cars under the new requirements than under the pre-HM-181 regulations. Since the pre-HM-181 regulations were unusually restrictive, RSPA and FRA

will not change the reference in Note 21 at this time.

In addition, use of a 109A tank car for ammonia solutions between 35 and 50 percent ammonia by mass is authorized. This authorization was inadvertently omitted in the December 21, 1990, final rule.

Section 173.315. Notes 3, 11, and 16 in paragraph (a) are editorially revised for clarity. Paragraphs (d) and (i)(12) are revised to correct section references.

Section 173.336. The section heading and introductory text are editorially revised to reflect the correct proper shipping names specified in the § 172.101 HMT.

Part 174: Carriage by Rail

Section 174.25. In the § 174.25 Table, the placard endorsement for a Division 1.6 material is changed from "Dangerous" to "None".

Section 174.55. Paragraph (c) is editorially revised to reference new orientation markings.

Section 174.61. Paragraph (c) is revised to reflect a change in the Federal Railroad Administration's approval authority.

Section 174.81. The Segregation Table and paragraph (e)(5) are revised to allow ammonium nitrate fertilizer to be loaded or stored with Division 1.5 (blasting agents) material. In addition, in the revised final rule, an "O" correctly appeared at the intersection of the row entitled "Flammable liquids" and the column entitled "5.1", but the "O" did not appear in the reverse intersection. In this document, the Segregation Table is editorially revised to add an "O" at the intersection of the row entitled "Oxidizers" and the column entitled "3". Paragraph (f) also is corrected to allow the shipment of detonators and high explosives in accordance with § 177.835(g).

Section 174.82. Paragraph (a) is revised to except Division 1.6 (explosive) materials from handling requirements.

Section 174.85. Paragraph (b) is editorially revised to clarify that Class 7 materials also must conform with the train position requirements of paragraph (d).

Part 176: Carriage by Vessel

Section 176.83. The text of paragraphs (c)(2)(i)(A) and (c)(2)(i)(B) is switched to indicate the correct meaning of each pictorial display.

Section 176.600. The phrases "Poison A" and "Poison B" are replaced with UN hazard class terminology.

Part 177: Carriage by Public Highway

Section 177.805. The section is editorially revised by removing the paragraph (a) designation.

Section 177.848. The Segregation Table and paragraph (e)(5) are revised to allow ammonium nitrate fertilizer to be loaded or stored with Division 1.5 (blasting agents) material. In addition, in the revised final rule, an "O" correctly appeared at the intersection of the row entitled "Flammable liquids" and the column entitled "5.1", but the "O" did not appear in the reverse intersection. In this document, the Segregation Table is editorially revised to add an "O" at the intersection of the row entitled "Oxidizers" and the column entitled "3". Paragraph (f) also is corrected to allow the shipment of detonators and high explosives in accordance with § 177.835(g).

Part 178: Specifications for Packagings

Section 178.44-15. Paragraph (a)(2) is reserved.

Section 178.45-7. Paragraph (c)(2) is reserved.

Section 178.270-5. Paragraphs (a), (c), and (d) are corrected by removing the wording "deka newtons" and replacing it with "decanewtons".

Section 178.337-1. A section reference in paragraph (b) is corrected.

Section 178.337-11. A date in paragraph (a)(4)(i)(B) is corrected.

Section 178.345-2. A reference to an ASTM standard in paragraph (a)(2) is corrected.

Section 178.345-11. Paragraph (a) is revised to remove inference that a loading/unloading outlet may not be used for other purposes. Changes are made to paragraph (b)(2) to clarify that the lading is discharged into the cargo tank *through internal piping* situated above the maximum liquid level of the tank. Prior to publication of a June 17, 1991 final rule (Docket HM-183, 56 FR 27877), former § 178.345-11(b)(2) stated that any loading/unloading connection extending beyond the prescribed stop valve which is part of a self-closing system "must be fitted with another stop-valve or other leak-tight closure at the end of such connection" (55 FR 37062, September 7, 1990). In the June 17 final rule, § 178.345-11 was reorganized for clarity and paragraph (b)(2) was revised and redesignated as paragraph (c). Through an oversight, the wording "or other leak-tight closure" was omitted in the revised rule and is corrected herein.

In addition, the phrase "Poison B liquids" is replaced with UN hazard class terminology.

Section 178.507. Paragraph (a) is corrected by removing "ID" and replacing it with "1D".

Section 178.601. In paragraph (h), a reference is corrected to include § 178.504.

Section 178.603. Paragraph (a) has been revised to specify that for other than flat drops, the center of gravity of the test packaging must be vertically over the point of impact. The UN Recommendations, as well as the ICAO Technical Instructions and the IMDG Code, require that the center of gravity be vertically over the point of impact. RSPA had originally specified only that a packaging be dropped "diagonally." However, based on petitions for reconsideration and comments to the amendments and corrections of December 20, 1991, RSPA recognizes that a drop with the center of gravity vertically over the point of impact is the most severe test. To permit drops in other orientations is inconsistent with the international requirements, and could allow certification of packagings which do not provide the desired structural integrity. While RSPA had previously stated a belief that a drop test with the center of gravity over the point of impact would be difficult to achieve, RSPA now believes that such an orientation can be and is being achieved in testing of all types of packagings. In addition, there has been some confusion over the number of samples which must be used for performance of the drop test. The intent of paragraph (a) is to require that six sample drums be drop tested, and five sample boxes be tested, etc. One sample cannot be tested five or six times to meet the requirements of this section. Therefore, the heading of the second column of the table in paragraph (a) has been changed to clarify this requirement.

Section 178.606. The requirement in paragraph (d) for the assessment of a packaging's stacking stability has been misinterpreted. The intent of this provision is that, in instances such as guided load tests where stacking stability cannot be assessed during the stacking test, an additional stacking stability assessment must be performed. This additional stacking stability assessment consists of stacking two identically filled packages on the test packaging, and having them maintain their position for one hour. Since this is part of the actual test procedure, paragraph (c) has been modified to specifically require that the stacking stability assessment procedure be performed whenever a guided load test is used. Reference to this stacking

stability assessment procedure has been removed from paragraph (d). Where the stacking test is performed using actual stacked packages, the stacking stability assessment procedure is not required.

Appendix B to Part 178. In the amendments and corrections published December 20, 1991, the alternative leak test procedure known as the "T-zone" test was added for metal drums. This test procedure is intended to be used only as a production testing method, not as a design qualification test. However, by placing the "T-zone" test in appendix B to part 178 without qualification, RSPA inadvertently authorized this test as an alternative for design qualification as well as production testing. Paragraph (4) of appendix B has been changed to limit the use of the alternative test procedure known as the "T-zone" test to other than design qualification testing.

Part 179: Specifications for Tank Cars

Section 179.101-1. The appropriate footnotes for each minimum plate thickness entry for Class DOT cars are moved to follow each entry to clarify that they are footnotes. In addition, for Class DOT 112A200W cars, the footnote "1" is removed as it is inconsistent with footnote "3", which remains.

Section 179.200. Paragraph (b)(4), which requires tank cars equipped with non-closing pressure relief devices to be marked "NOT FOR FLAMMABLE OR POISONOUS LIQUIDS", is removed as it is inconsistent with the marking requirement in § 173.31(a)(15), which allows certain poisonous liquids in tank cars with a non-closing pressure relief device. Part 179 requires tank cars equipped with non-closing pressure relief devices to have the marking "NOT FOR FLAMMABLE OR POISONOUS LIQUIDS" applied to the tank; whereas, part 173 allows certain poisonous liquids in tank cars with a non-closing pressure relief device. Since this marking applies only to rail transportation, is inconsistent with other modes of transport, and is applied for the sole use of the shipping community, § 179.200-18(b)(4) is removed for regulatory consistency thereby leaving the marking requirement to the private sector if the need arises.

Part 180: Continuing Qualification and Maintenance of Packaging

Section 180.403. A section reference in the definition for "corrosive to the tank/valve" a section reference is corrected.

Section 180.405. A section reference in paragraph (g)(2) is corrected.

Section 180.407. Paragraph (d)(2)(vii) states that, as part of the periodic external visual inspection, a cargo tank motor vehicle must conform to parts 393

and 396 of the Federal Motor Carrier Safety Regulations (FMCSR) and, where appropriate, part 571 of the Federal Motor Vehicle Safety Standards (FMVSS). This provision is redundant with § 177.834 which requires motor carriers and other persons subject to part 177 to comply with the FMCSR. Part 571 of the FMVSS applies to newly manufactured vehicles and not to the continuing qualification of a vehicle. For these reasons, paragraph (d)(2)(vii) is removed and reserved.

Section 180.409. Paragraph (b) is revised to clarify that an employee, who is not a Registered Inspector, may perform hydrostatic or pneumatic pressure tests under certain specified conditions, but external and internal visual inspections must be done by a Registered Inspector.

Section 180.413. In a final rule published on September 7, 1990, at 55 FR 37069, the amendatory language to § 180.413 incorrectly stated that paragraph "(d)(1)(v)" was revised instead of stating "(d)(2)(v)" was revised. The revised text allowing the use of a supplemental specification plate on stretched or rebarrelled cargo tanks appears in the September 7 publication but not in the 1991 edition of the CFR. The CFR contains an editorial note following the section stating that RSPA would publish a document in the Federal Register to clarify the agency's intent. The error is corrected herein.

Section 180.415. Paragraph (b) pertaining to the display of periodic test and inspection markings on cargo tank motor vehicles is revised to clarify that the date must be readily identifiable with the applicable test or inspection and to permit other arrangements other than the date followed by the type of test or inspection. In the last sentence in paragraph (c), the wording "constructed to different intervals" is revised to read "constructed to different specifications, which are tested and inspected at different intervals." This wording was inadvertently omitted in a June 17, 1991 final rule (Docket HM-183, 56 FR 27877, also see Federal Register publication dated September 7, 1990, page FR 37062).

Rulemaking Analyses and Notices

A. Executive Order 12291

This final rule has been reviewed under the criteria specified in section 1(b) of Executive Order 12291 and is determined not to be a major rule. Although the underlying rule was considered to be "significant" under the regulatory procedures of the Department of Transportation, this document is considered to be "non-significant" because it clarifies and corrects

provisions of the final rule and provides consistency. This final rule does not impose additional requirements and, in fact, provides relief in some areas. The net result is that costs imposed under the final rule published in the Federal Register on December 21, 1990 are reduced, but without a reduction in safety [55 FR 52402]. The original regulatory evaluation of the final rule was reexamined but was not modified because the changes made under this rule provide limited relief and thus will result in minimal economic impact on industry.

B. Executive Order 12612

This action has been analyzed in accordance with Executive Order 12612 ("Federalism"). The HMTA contains an express preemption provision which RSPA is implementing at the minimum level necessary to achieve the objectives of the statute. Therefore, preparation of a Federalism Assessment is not warranted.

C. Impact on Small Entities

Based on limited information concerning size and nature of entities likely to be affected by this rule, I certify this rule will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A regulatory flexibility analysis is available for review in the docket.

D. Paperwork Reduction Act

This amendment imposes no changes to the information collection and recordkeeping requirements contained in the December 21, 1990 final rule, which was approved by the Office of Management and Budget (OMB) under the provisions of 44 U.S.C. chapter 35.

E. Regulation Identification Number (RIN)

A regulation identification number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN numbers contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

F. National Environmental Policy Act

This final rule has been reviewed under the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) and does not require an environmental impact statement.

List of Subjects**49 CFR Part 107**

Administrative practice and procedure, Hazardous materials transportation, Packaging and containers, Penalties, Reporting and recordkeeping requirements.

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Hazardous materials transportation, Hazardous waste, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 174

Hazardous materials transportation, Radioactive materials, Railroad safety.

49 CFR Part 176

Hazardous materials transportation, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 177

Hazardous materials transportation, Motor carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 179

Hazardous materials transportation, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

In consideration of the foregoing, 49 CFR Chapter I is amended as follows:

PART 107—HAZARDOUS MATERIALS PROGRAM PROCEDURES

1. The authority citation for part 107 continues to read as follows:

Authority: 49 App. U.S.C. 1421(c), 1802, 1804, 1806, 1808, 1808-1811, 1813; Public Law

89-670, 80 Stat. 933 (49 App. U.S.C. 1853(d), 1855); 49 CFR 1.45 and 1.53 and app. A of 49 CFR part 2.

2. In § 107.315, paragraph (c) is revised and paragraph (d) is added, to read as follows:

§ 107.315 Admission of violations.

(c) Payment of a civil penalty, when the amount of the penalty exceeds \$10,000, must be made by wire transfer, through the Federal Reserve Communications System (Fedwire), to the account of the U.S. Treasury. Detailed instructions on making payments by wire transfer may be obtained from the Salary and Expenses Branch (M-86.2), Accounting Services Division, Office of the Secretary, room 9112, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590-0001 (Tel. No. 202-366-5780). A photocopy of the electronic funds transfer receipt should be sent to the Office of the Chief Counsel (DCC-1), RSPA, room 8405, at the same address.

(d) Payment of a civil penalty, when the amount of the penalty is \$10,000 or less, must be made either by wire transfer, as set forth in paragraph (c) of this section, or certified check or money order payable to "U.S. Department of Transportation" and submitted to the Salary and Expenses Branch (M-86.2), Accounting Services Division, Office of the Secretary, room 9112, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590-0001. A photocopy of that check or money order should be sent to the Office of the Chief Counsel (DCC-1), RSPA, room 8405, at the same address.

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

3. The authority citation for part 171 continues to read as follows:

Authority: 49 App. U.S.C. 1802, 1803, 1804, 1805, 1808, 1815, 1818; 49 CFR Part 1.

4. In § 171.8, the following definitions are added, revised, or removed, as indicated, in appropriate alphabetical order:

§ 171.8 Definitions and abbreviations.**[Add:]**

NRC (non-reusable container) means a packaging (container) whose reuse is restricted in accordance with the provisions of § 173.28 of this subchapter.

[Revise:]

Bulk packaging means a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment and which has:

(1) A maximum capacity greater than 450 L (199 gallons) as a receptacle for a liquid;

(2) A maximum net mass greater than 400 kg (882 pounds) and a maximum capacity greater than 450 L (119 gallons) as a receptacle for a solid; or

(3) A water capacity greater than 454 kg (1000 pounds) as a receptacle for a gas as defined in § 173.115 of this subchapter.

Non-bulk packaging means a packaging which has:

(1) A maximum capacity less than 450 L (119 gallons) as a receptacle for a liquid;

(2) A maximum net mass less than 400 kg (882 pounds) and a maximum capacity less than 450 L (119 gallons) as a receptacle for a solid; or

(3) A water capacity greater than 454 kg (1000 pounds) or less as a receptacle for a gas as defined in § 173.115 of this subchapter.

Oxidizer. See § 173.127 of this subchapter.

§ 171.8 [Amended]

5. In addition, in § 171.8, the second definition of "Oxidizer" is removed.

6. In § 171.12, paragraph (b)(7) is revised to read as follows:

§ 171.12 Import and export shipments.**(b)**

(7) A Class 1 material must be classed and approved under the procedures in subpart C of part 173 of this subchapter and conform to the requirements of 172.320 and part 178 of this subchapter.

7. In § 171.12a, the first sentence of paragraph (b) introductory text is revised to read as follows:

§ 171.12a Canadian shipments and packaging.

(b) *Conditions and limitations.* Notwithstanding the requirements of parts 172, 173, and 178 of this subchapter, and subject to the limitations of paragraph (a) of this section, a hazardous material that is classed, marked, labeled, placarded, described on a shipping paper, and packaged in accordance with the Transportation of Dangerous Goods

(TDG) Regulations issued by the Government of Canada may be offered for transportation and transported to or through the United States by motor vehicle or rail car. * * *

8. In § 171.14, the section heading, paragraph (a), the introductory text of paragraph (b), and the introductory text of paragraph (c)(2) preceding the Placard Substitution Table are revised to read as follows:

§ 171.14 Transitional provisions for implementing requirements based on the UN Recommendations.

(a) *General.* The transitional provisions of this section are subject to the following conditions and limitations:

(1) *Purpose.* A rule published in the Federal Register on December 21, 1990, effective October 1, 1991, resulted in a comprehensive revision of this subchapter based on the UN Recommendations. Final rules published in the Federal Register on December 20, 1991, effective October 1, 1991, and on October 1, 1992 in the Federal Register, effective October 1, 1992, further revised the December 21, 1990 final rule. The purpose of the provisions of this section is to provide an orderly transition to the new requirements, so as to minimize any burdens associated with them.

(2) *Scope.* Except as provided in paragraph (a)(3) of this section, during a transition period as provided in paragraphs (b) and (c) of this section, a person may elect to comply with either the applicable requirements of this subchapter in effect on September 30, 1991, or the requirements of this subchapter appearing in the December 20, 1990 rule, as revised in final rules published in the Federal Register on December 20, 1991, and October 1, 1992.

(3) *Applicability.* Final rules issued subsequent to the December 21, 1990 rule may implement different time requirements than the transitional provisions in this section. When the effective date section or regulatory text of a final rule imposes a compliance date earlier or later than that which would be required under this section, the transition date in this section does not apply.

(b) *Transition dates.* Except as provided in paragraph (a) of this section, the following transition dates apply only to requirements in the December 21, 1990 rule, as revised in the December 20, 1991 and October 1, 1992, final rules:

(c) * * *

(2) *Transitional placarding provisions.* Until October 1, 2001, placards which conform to specifications for placards in effect on September 30, 1991 or placards

specified in the December 21, 1990 final rule may be used, for highway transportation only, in place of the placards specified in subpart F of part 172 of this subchapter, in accordance with the following table:

PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS

9. The authority citation for part 172 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1805, and 1808; 49 CFR part 1, unless otherwise noted.

§ 172.101 [Amended]

10. In § 172.101, in the Hazardous Materials Table, the following changes are made:

a. For the entry "Acrolein, inhibited", the "+" is removed in Column (1), and, in Column (7), Special Provision "T45" is revised to read "T44".

b. For the entry "Aerosols, *poison, each not exceeding 1 L capacity*", in Column (7), Special Provision "3" is removed.

c. For the entry "Alkali metal alloys, liquid, n.o.s.", in Column (7), Special Provision "B48," is added in appropriate alpha-numeric order.

d. For the second entry for "Ammonia anhydrous liquefied or Ammonia solutions" commas are added to read "Ammonia, anhydrous, liquefied or Ammonia solutions".

e. For the entry "Ammonium nitrate, liquid (*hot concentrated solution*)", Special Provision "B17," is removed.

f. The first entry for "Azido hydroxy tetrazole (*mercury and silver salts*)" is removed.

g. For the entry "Barium peroxide", in Column (8C), "2" is removed and replaced with "242".

h. For the entry "Blue Asbestor (*Crocidolite*) or Brown asbestos (*amosite, mysorite*)", in Column (1), an "I" is added and in Column (2), the words "Blue Asbestos" are revised to read "Blue asbestos".

i. For the first entry for "Bombs, *with bursting charge*", in Division 1.1F, in Column (9A), the word "Forbidden" is revised to read "Forbidden".

j. For the entry "Butane or Butane mixtures *see also* Petroleum gases, liquefied", in Column (7), Special Provision "19" is added.

k. For the entry "Butylene *see also* Petroleum gases, liquefied", in Column (7), Special Provision "19" is added.

l. For the entry "Carbon dioxide and nitrous oxide mixtures", the Column (8C) section reference "244" is revised to read "314, 315".

m. For the entry "Carbon monoxide", the Column (8C) section reference "302" is revised to read "314, 315".

n. For the entry "Combustible liquid, n.o.s.", the entry is amended by moving it to its correct alphabetical sequence following "*Collodion, see Nitrocellulose etc.*".

o. For the entry "Corrosive solids, self heating, n.o.s." in Packing Group I, in Column (8C), the section reference "241" is revised to read "243".

p. For the entry "Corrosive solids, which in contact with water emit flammable gases, n.o.s." in Packing Group I, in Column (8C), the section reference "241" is revised to read "243".

q. For the entry "Diethylaminoethylamine", in Column (1), "AW" is removed.

r. For the entry "Dimethylhydrazine, unsymmetrical", in Column (7), Special Provision "B58," is removed and Special Provision "B74," is added in appropriate alpha-numeric order.

s. For the entry "Fusee", the entry is amended by moving it to its correct alphabetical sequence following "Fuse, safety".

t. For the entry "Hexachlorocyclopentadiene", in Column (7), Special Provision "T44" is revised to read "T45".

u. For the entry "Hydrochloric acid, solution", in Column (7), Special Provision "B2" is revised to read "B3".

v. For the entry "Hydrogen cyanide, anhydrous, stabilized", in Column (7), Special Provision "B35," is added in appropriate alpha-numeric order.

w. For the entry "Hydrogen peroxide, aqueous solutions *with more than 40 per cent but not more than 60 per cent hydrogen peroxide (stabilized as necessary)*", in Column (7), Special Provision "BB53" is revised to read "B53".

x. For the entry "Hydroxylamine sulfate", in Column (1), "AW" is removed.

y. For the entry "Isophoronediamine", in Column (1), "AW" is removed.

z. For the entry "Lead compounds, soluble, n.o.s.", the Column (5) packing group reference "II" is revised to read "III" and the Column (6) label "POISON" is revised to read "KEEP AWAY FROM FOOD".

aa. For the entry "Metal powders, flammable, n.o.s." in Packing Group III, in Column (8C), the section reference "140" is revised to read "240".

bb. For the entry "Methanol, or Methyl alcohol", in Column (8C), the

section reference "243" is revised to read "242".

cc. For the entry "Methylhydrazine", in Column (8B), the section reference "227" is revised to read "226".

dd. For the entries "Nitrating acid mixtures *with not more than 50 per cent nitric acid*" and "Nitrating acid mixtures *with 50 per cent or more nitric acid*", in Column (7), Special Provision "B47," is added in appropriate alpha-numeric order.

ee. For the entry "PCB *see* Polychlorinated biphenyls", in Column (1), "D" is removed and replaced with "AW".

ff. For the entry "Phosphorus pentasulfide, *free from yellow or white phosphorus*", in Column (8C), the section reference "243" is revised to read "242".

gg. For the entry "Propane *see also* Petroleum gases, liquefied", in Column (7), Special Provision "19" is added.

hh. For the entry "Silicon tetrachloride", in Column (7), Special Provision "N41," is removed.

ii. For the entry "Sodium", in Column (7), Special Provisions "B48," and "T46" are added in appropriate alpha-numeric order and Special Provision "T28," is removed.

jj. For the entry "Sodium bisulfate, *solid or solution*", *see* Sodium hydrogen sulfate, *solid or solution*", in Column (2), the proper shipping name is revised to read "Sodium bisulfate, *solution*, *see* Sodium hydrogen sulfate, *solution*".

kk. For the entry "Substances which in contact with water emit flammable gases, *solid n.o.s.*", in Packing Group III, in Column 8(C) the section reference "242" is revised to read "241" and the proper shipping name in Column (2) is amended by inserting a comma after the word "solid".

ll. For the entry "Sulfuric acid", in Column (7), Special Provision "B2" is revised to read "B3".

mm. For the entry "Sulfuric acid, *fuming less than 30 percent free sulfur trioxide*", in Column (8), the "POISON" label is removed.

nn. For the entry "Sulfuryl chloride", in Column (7), Special Provision "B32" is revised to read "B30".

oo. For the entry "Tars, *liquid including road asphalt and oils bitumen and cut backs*", in Packing Groups II and III, in Column (7), Special Provision "B13," is added in appropriate alpha-numeric order.

pp. For the entry "Titanium tetrachloride", in Column (7), Special Provision "B77," is added in appropriate alpha-numeric order.

qq. For the entry "(mono-(Trichloro) tetra-(monopotassium dichloro)-penta-s-triazinetriene, *dry (containing over 39% available chlorine)*", in Column (2), the proper shipping name is amended by removing the first parenthesis preceding "mono-(Trichloro)".

rr. For the entry "Vanadium trichloride", in Column (1), "AW" is removed.

11. In addition, the Hazardous Materials Table is amended by removing, adding, or revising, in appropriate alphabetical sequence, the following entries:

§ 172.101 HAZARDOUS MATERIALS TABLE

Symbol	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	Packing group	Label(s) required (if not accepted)	Special provisions	Packaging authorizations (§ 173.***)			Quantity limitations		Vessel stowage requirements	
							Excep- tions	Non-bulk packaging	Bulk packaging	Passenger aircraft or rail car	Cargo air craft only	Vessel stowage	Other stowage provisions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	[REMOVE]												
	Asbestos, blue or brown, see Blue asbestos etc.												
	Asbestos, white, see White asbestos etc.												
	Dinitrolytoluril	Forbidden											
	Fish meal or Fish scrap stabilized	9	UN2218	III	None	A1	155	218	218	No limit	No limit	A	88, 120
	Isobutane or isobutane mixtures	2.1	UN1969		Flammable gas		306	304	314, 315	Forbidden	150 kg	E	40
	Sodium hydrogen sulfate, solid	8	UN1821	III	Corrosive		154	213	240	25 kg	100 kg	A	
	White asbestos (chrysotile, anthophyllite, actinolite, tremolite)	9	UN2590	III	Class 9		155	216	240	200 kg	200 kg	A	34, 40
	[ADD]												
	Asbestos	9	NA2212	III	Class 9		155	216	240	200 kg	200 kg	A	34, 40
	Fish meal, stabilized or Fish scrap, stabilized	9	UN2218	III	None		155	218	218	No limit	No limit	A	88, 120
	Isobutane or isobutane mixtures see also Petroleum gases, liquefied	2.1	UN1969		Flammable gas	19	306	304	314, 315	Forbidden	150 kg	E	40
	White asbestos (chrysotile, anthophyllite, actinolite, tremolite)	9	UN2590	III	Class 9		155	216	240	200 kg	200 kg	A	34, 40

[REVISED]

Aircraft hydraulic power unit fuel tank (containing a mixture of anhydrous hydrazine and monomethylhydrazine) (M88 fuel).	3	UN3185	I	Flammable liquid, poison, corrosive.	B1, T1	150	202	242	5 L	Forbidden	30 L	E
	3	UN3085	II	Flammable liquid.	B1, T1	150	202	242	5 L	Forbidden	30 L	A
	3	NA	III	Flammable liquid.	B1, N11, T1	150	203	242	60 L	Forbidden	220 L	A
1,2 Propylenediamine.	8	UN2258	II	Corrosive	A3, A8, N34, T8.	None	202	243	1 L	Forbidden	30 L	A

12, 20, 40, 48

§ 172.101, App. [Amended]

12. In the Appendix to § 172.101, in paragraph 2., the reference "§ 172.101(c)(9)" is revised to read "§ 172.101(c)(8)".

13. In § 172.102, the following special provisions are added, revised, or removed as indicated:

a. In paragraph (c)(1), Special Provisions 19 and 21 are added.

b. In paragraph (c)(3), Special Provisions B13, B35, and B47 are added and Special Provisions B14 and B69 are revised.

c. In paragraph (c)(7)(ii), T28 is redesignated as T46 and moved to its proper alpha-numeric order and Special Provisions T28, T39 and T43 are added.

§ 172.102 Special provisions.

(c) . . .
(1) . . .

Code/Special Provisions

19. For domestic transportation only, the identification number "UN1075" may be used in place of the identification number specified in Column (4) of the § 172.101 Table. The identification number used must be consistent on package markings, shipping papers and emergency response information.

21. This material must be stabilized by appropriate means (e.g., addition of chemical inhibitor, purging to remove oxygen) to prevent dangerous polymerization (see § 173.21(f) of this subchapter).

(3) . . .

Code/Special Provisions

B13. A nonspecification cargo tank motor vehicle authorized in § 173.247 of this subchapter must be at least equivalent in design and in construction to a DOT 406 cargo tank or MC 306 cargo tank (if constructed before September 1, 1993), except as follows:

a. Packagings equivalent to MC 306 cargo tanks are excepted from §§ 178.340-10, certification; 178.341-4, vents; and 178.341-5, emergency flow control.

b. Packagings equivalent to DOT 406 cargo tanks are excepted from §§ 178.345-14, marking; 178.345-15, certification; 178.346-10, pressure relief; and 178.346-11, outlets.

c. Packagings are excepted from the design stress limits at elevated temperatures, as described in the ASME Code. However, the design stress limits may not exceed 25 per cent of the stress, as specified in § 178.65-5(b) of this subchapter, for 0 temper at the maximum design temperature of the cargo tank.

B14. Each tank, except a multi-unit tank car tank, must be insulated with at least 100 mm (3.9 inches) of cork or other suitable insulation material of sufficient thickness

that the overall thermal conductance at 15.5 °C (60 °F) is not more than 1.533 kilojoules per hour per square meter per degree Celsius (0.075 Btu per hour per square foot per degree Fahrenheit) temperature differential. Insulation systems must not promote corrosion to steel when wet. Tank and jacket protective coatings are required. Additionally, all tank car tanks constructed after October 1, 1989 and tanks repaired after October 1, 1993, where the entire jacket is removed during the repair, must have tank and jacket protective coatings. The jacket must be flashed around all openings so as to be weather tight.

B35. Tank cars containing hydrogen cyanide may be alternatively marked "Hydrocyanic acid, liquefied" if otherwise conforming to marking requirements in subpart D of this part.

B47. A safety relief device with a start-to-discharge pressure setting of 310 kPa (45 psig) is permitted.

B69. Dry sodium cyanide or potassium cyanide may be shipped in sift-proof weather-resistant metal covered hopper cars, covered motor vehicles, portable tanks or non-specification bins. Bins must be approved by the Associate Administrator for Hazardous Materials Safety. Flexible intermediate bulk containers (FIBCs) may also be used under conditions approved by the Associate Administrator for Hazardous Materials Safety.

(7) . . .
(ii) . . .

Code/Special Provisions

T28. See entry for T28 in the IM Tank Configuration Table in paragraph (c)(70)(i) of this section.

T39. See entry for T39 in the IM Tank Configuration Table in paragraph (c)(7)(i) of this section.

T43. See entry for T43 in the IM Tank Configuration Table in paragraph (c)(7)(i) of this section.

§ 172.102 [Amended]

14. In addition, in § 172.102, the following changes are made:

a. In paragraph (c)(1), in Special Provision 4, the wording "Hazard Zone C" is revised to read "Hazard Zone D".

b. In paragraph (c)(1), in Special Provision 12, the word "comply" is revised to read "conform".

c. In paragraph (c)(1), in Special Provision 28, the word "dihydrated" is revised to read "dehydrated"

d. In paragraph (c)(1), in Special Provision 31, the word "nonhazardous" is revised to read "non-hazardous".

e. In paragraph (c)(3), in Special Provisions B2, B3, B4, and B10, the wording "MC 306" is revised to read "MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306".

f. In paragraph (c)(3), in Special Provision B24, the wording "shall be" is revised to read "must be".

g. In paragraph (c)(3), in Special Provision B26, the last two sentences are revised to read "In addition, the material also must be covered with an inert gas or the container must be filled with water to the tank's capacity. After unloading, the residual material also must be covered with an inert gas or the container must be filled with water to the tank's capacity."

h. In paragraph (c)(3), in Special Provision B68, the wording "2069 kPa" is revised to read "2.069 kPa".

i. In paragraph (c)(3), in Special Provision B80, the wording "shall have" is revised to read "must have".

j. In paragraph (c)(3), in Special Provision B90, the wording "equivalent or" is revised to read "equivalent to"

§ 172.203 [Amended]

15. In § 172.203, in paragraph (m)(1), the wording "is not disclosed in the shipping name" is revised to read "is not disclosed in the shipping name or class entry".

§ 172.312 [Amended]

16. In § 172.312, in paragraph (a)(2), a second sentence is added at the end of the paragraph to read "Depicting a rectangular border around the arrows is optional."

§ 172.330 [Amended]

17. In § 172.330, in paragraph (a), the paragraph heading "Shipping name." is revised to read "Shipping name and identification number."

§ 172.405 [Amended]

18. In § 172.405, in paragraph (a) introductory text, the wording "is not required on a label when" is revised to read "is not required on a primary or subsidiary label when".

19. In § 172.422, paragraph (a) is revised to read as follows:

§ 172.422 SPONTANEOUSLY COMBUSTIBLE label.

(a) Except for size and color, the SPONTANEOUSLY COMBUSTIBLE label must be as follows:

BILLING CODE 4910-60-M



BILLING CODE 4910-60-C

20. In § 172.504, the introductory text of paragraph (c) and paragraphs (f)(1) and (f)(4) are revised, and paragraphs (f)(9) and (f)(10) are added to read as follows:

§ 172.504 General placarding requirements.

(c) *Exception for less than 454 kg (1,001 pounds).* Except for bulk packagings and hazardous materials subject to § 172.505, when hazardous materials covered by Table 2 of this section are transported by highway or rail, placards are not required on—

(f) * * * (1) When more than one division placard is required for Class 1 materials on a transport vehicle, rail car, freight container or unit load device, only the placard representing the lowest division number must be displayed.

(4) OXIDIZER placards are not required for Division 5.1 materials on freight containers, unit load devices, transport vehicles or rail cars which also contain Division 1.1 or 1.2 materials and which are placarded with EXPLOSIVES 1.1 or 1.2 placards, as required.

(9) For domestic transportation, a Class 9 placard is not required. A bulk packaging containing a Class 9 material must be marked on each side and each end with the appropriate identification number displayed on an orange panel or a white-square-on-point display configuration are required by subpart D of this part.

(10) For domestic transportation of Division 6.1, PG III materials, a POISON placard may be used in place of a KEEP AWAY FROM FOOD placard.

21. In § 172.505, paragraph (a) is revised to read as follows:

§ 172.505 Placarding for subsidiary hazards.

(a) Each transport vehicle, freight container, portable tank and unit load device that contains a poisonous material subject to the "Poison-Inhalation Hazard" shipping description of § 172.203(m)(3) must be placarded with a POISON or POISON GAS placard, as appropriate, on each side and each end, in addition to any other placard required for that material in § 172.504. Duplication of the POISON or POISON GAS placard is not required.

22. In § 172.510, paragraph (e) is revised to read as follows:

§ 172.510 Special placarding provisions: Rail.

(e) *Chemical ammunition.* Each rail car containing Division 1.1 or 1.2 (explosive) ammunition which also meets the definition of a material poisonous by inhalation (see § 171.8 of this subchapter) must be placarded EXPLOSIVES 1.1 or EXPLOSIVES 1.2 and POISON GAS or POISON.

§ 172.510 [Amended]

23. In addition, in § 172.510, in paragraph (c), in the second sentence, the wording "§ 172.505(c)" is revised to read "§ 172.505".

§ 172.519 [Amended]

24. In § 172.519, in paragraph (b)(3), the wording "For other than Class 7," is revised to read "For other than Class 7 or the OXYGEN placard,".

§ 172.526 [Amended]

25. In § 172.526, in paragraph (a)(4), in the first sentence, "172.540," is added in its appropriate numerical sequence.

26. In § 172.560, paragraph (b) is revised to read as follows:

§ 172.560 CLASS 9 placard.

(b) In addition to conformance with § 172.519, the background on the CLASS 9 placard must be white with seven black vertical stripes on the top half extending from the top of the placard to one inch above the horizontal centerline. The black vertical stripes must be spaced so that, visually, they appear equal in width to the six white spaces between them. The space below the vertical lines must be white with the class number 9 underlined and centered at the bottom.

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

27. The authority citation for part 173 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1805, 1806, 1807, 1808, 1817; 49 CFR part 1, unless otherwise noted.

§ 173.2 [Amended]

28. In the § 173.2 Table, for the entry "Oxidizer", in the fourth column the entry "§ 173.128" is removed and replaced with "§ 173.127".

§ 173.22 [Amended]

29. In § 173.22, in paragraph (a)(4), the reference "§ 178.2(d)" is revised to read "§ 178.2(c)".

§ 173.23 [Amended]

30. In § 173.23, in paragraph (c), the wording "i.e." is revised to read "e.g.".

§ 173.24a [Amended]

31. In § 173.24a, in paragraph (c)(1)(iii), the wording "Corrosive materials" is revised to read "Corrosive materials (except ORM-D)".

32. § 173.28, a new paragraph (e) is added to read as follows:

§ 173.28 Reuse, reconditioning and remanufacture of packagings.

(e) *Non-reusable containers.* A packaging marked as NRC according to the DOT specification or UN standard requirements of part 178 of this subchapter may be reused for the shipment of any material not required by this subchapter to be shipped in a DOT specification or UN standard packaging.

§ 173.31 [Amended]

33. In § 173.31, in paragraph (c), the following changes are made:

a. In Note i following Retest Table 1, the wording "Associate Director for HMR" is revised to read "Associate Administrator for Hazardous Materials Safety".

b. In Note n following Retest Table 1, the reference "§ 179.102-11 of this chapter" is revised to read "§ 173.314(i)".

§ 173.32 [Amended]

34. In § 173.32, the following changes are made:

a. In paragraph (a)(1), the words "comply with" are revised to read "conform to".

b. In paragraph (a)(3), the reference "§ 173.300" is revised to read "§ 173.115" and the words "complying with" are revised to read "conforming to".

c. In paragraph (a)(5), the reference "§ 172.101(c)(7)" is revised to read "§ 172.102(c)(7)".

d. In paragraph (c), the reference "(e) (3), (4), and (5)" is revised to read "(e) (3) and (4)".

35. In § 173.32c, a new paragraph (r) is added to read as follows:

§ 173.32c Use of Specification IM portable tanks.

(r) Hazardous materials authorized for transport in a tank fitted with bottom outlets having two serially mounted closures are also authorized for transport in a tank fitted with three serially mounted closures and in tanks fitted with no bottom outlets. Similarly, hazardous materials authorized for transport in tanks fitted with bottom outlets having three serially mounted closures are also authorized for transport in tanks fitted with no bottom outlets.

§ 173.32c [Amended]

36. In addition, in § 173.32c, in paragraph (f), the reference "§ 178.270-II(d)" is corrected to read "§ 178.270-11(d)."

§ 173.33 [Amended]

37. In § 173.33, the following changes are made:

a. In paragraph (c)(1)(iii), the reference "§ 173.119(a)(17)(iii)" is revised to read "Special Provision B33 in § 172.102(c)(3) of this subchapter".

b. In paragraph (c)(5), the wording "Poison B material" is revised to read "Division 6.1 (poisonous liquid) material".

c. In paragraph (e), the wording "Poison B liquid" is revised to read

"Division 6.1 (poisonous liquid) material".

§ 173.115 [Amended]

38. In § 173.115, in paragraph (b)(1), the wording "or greater" is added immediately following "290 kPa (41 psia)" and before "at 20 °C".

§ 173.120 [Amended]

39. In § 173.120, in paragraphs (b)(1) and (b)(2), the wording ", except Class 9," is removed both places it appears.

40. In § 173.124, paragraph (a)(3)(ii) is revised to read as follows:

§ 173.124 Class 4 Divisions 4.1, 4.2 and 4.3—Definitions.

(a) * * *

(3) * * *

(ii) Show a burning rate faster than 2.2 mm (0.087 inches) per second when tested in accordance with paragraph 2.c.(2) of appendix E to this part; or

41. In § 173.133, in paragraph (a)(2)(ii), the introductory text is republished and Figure 1 is revised to read as follows:

§ 173.133 Assignment of packing group and hazard zones for Division 6.1 materials.

(a) * * *

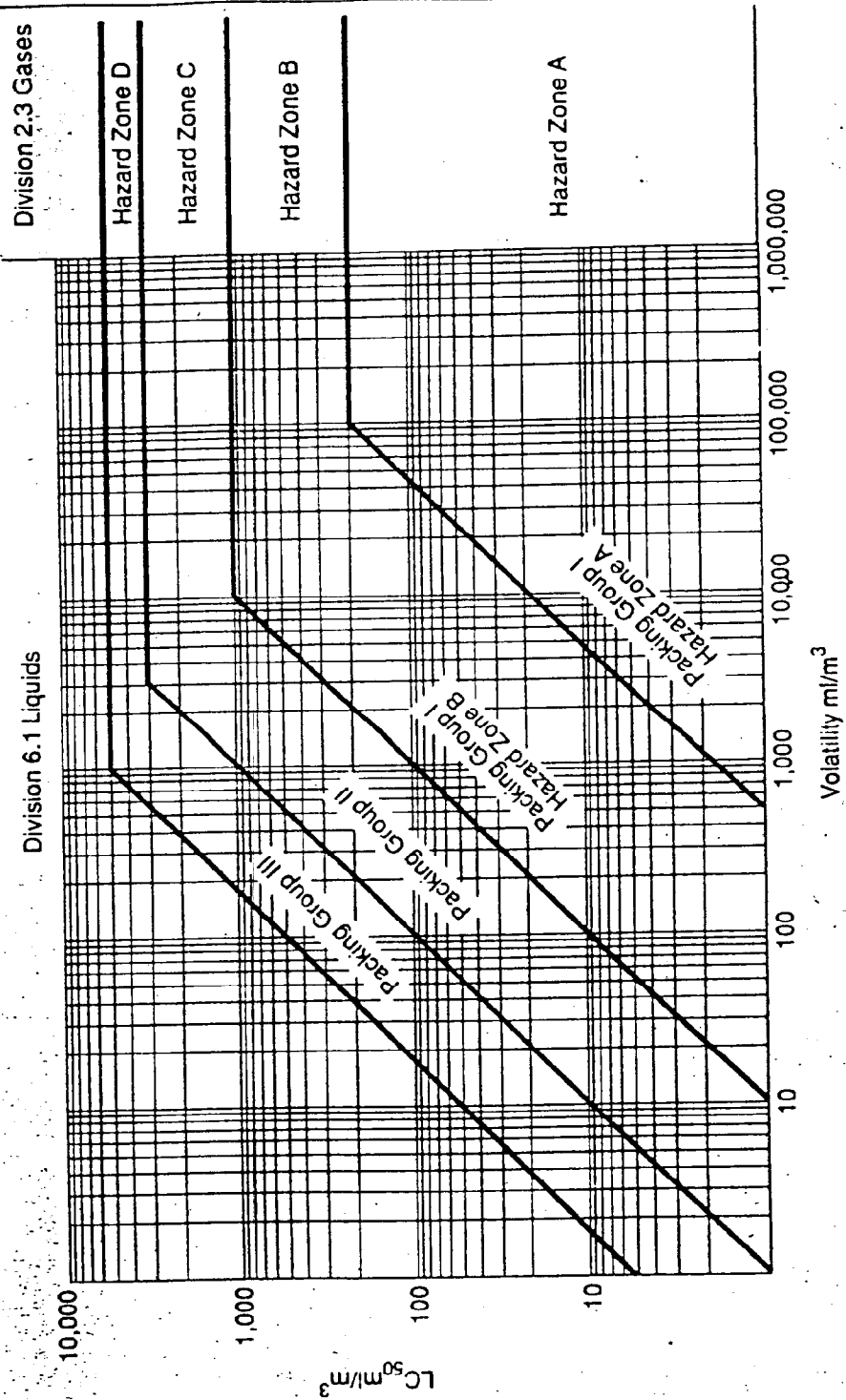
(2) * * *

(ii) These criteria are represented graphically in Figure 1:

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 OFFICE OF HAZARDOUS MATERIALS
 REGULATIONS

Figure 1
Inhalation Toxicity: Packing Group and
Hazard Zone Borderlines



BILLING CODE 4910-40-C

§ 173.133 [Amended]

42. In addition, in § 173.133, the following changes are made:

a. In the paragraph (a)(1) table, in column 4, "<0.5<2" is revised to read to ">0.5<2".

b. In paragraph (a)(2)(i), in column 1 of the table, add "II" and "III", respectively, for the entries in column 2 beginning "V>LC₅₀" and "V>.2LC₅₀", respectively.

43. Section 173.140 is revised to read as follows:

§ 173.140 Class 9—Definitions.

For the purposes of this subchapter, "miscellaneous hazardous material" (Class 9) means a material which presents a hazard during transportation but which does not meet the definition of any other hazard class. This class includes:

(a) Any material which has an anesthetic, noxious or other similar property which could cause extreme annoyance or discomfort to a flight crew member so as to prevent the correct performance of assigned duties; or

(b) Any material which meets the definition in § 171.8 of this subchapter for an elevated temperature material, a hazardous substance or a hazardous waste.

§ 173.150 [Amended]

44. In § 173.150, the following changes are made:

a. In paragraphs (a) and (f), the wording ", except Class 9" is removed.

b. In paragraph (f)(3)(vii), the word "comply" is revised to read "conform".

45. In § 173.154, paragraph (d) is revised to read as follows:

§ 173.154 Exceptions for Class 8 (corrosive materials).

(d) *Materials corrosive to aluminum or steel only.* Except for a hazardous substance or a hazardous waste, a material classed as a Class 8, Packing Group III, material solely because of its corrosive effect—

(1) On aluminum is not subject to any other requirements of this subchapter when transported by motor vehicle or rail car in a packaging constructed of materials that will not react dangerously with or be degraded by the corrosive material; or

(2) On steel is not subject to any other requirements of this subchapter when transported by motor vehicle or rail car in a bulk packaging constructed of materials that will not react dangerously with or be degraded by the corrosive material.

§ 173.156 [Amended]

46. In § 173.156, in paragraph (b), in the second sentence, the wording "unitized in cages, carts or similar overpacks" is revised to read "unitized in cages, carts, boxes or similar overpacks" and the wording "from a distribution center to a retail outlet" is revised to read "from a manufacturer to a distribution center, from a manufacturer or a distribution center to a retail outlet, or return".

47. In § 173.159, new paragraphs (b)(3), (b)(4), (b)(5), and (b)(6) are added to read as follows:

§ 173.159 Batteries, wet.

(b) . . .

(3) 1D plywood drums.

(4) 1G fiber drums.

(5) 1H2 and 3H2 plastic drums and jerricans.

(6) 4H2 plastic boxes.

§ 173.159 [Amended]

48. In addition, in § 173.159, in paragraph (c) introductory text, the word "articles" is revised to read "materials".

§ 173.193 [Amended]

49. In § 173.193, in paragraph (d), the wording", except those containing methyl bromide," is added to immediately follow the word "Cylinders".

§ 173.211 [Amended]

50. In § 173.211, in paragraph (c), for the entry "Plastic receptacle in steel, aluminum, plywood, fiber or plastic drum:" the wording "6HA2" is revised to read "6HA1"; and for the entry "Plastic receptacle in steel, aluminum, wooden, plywood or fiberboard box:" the wording "6HA1" is revised to read "6HA2".

§ 173.225 [Amended]

51. In § 173.225, the following changes are made:

a. In paragraph (e)(2), the wording "MC 310, MC 311 and MC 312 cargo tank motor vehicles" is revised to read "MC 310, MC 311, MC 312 and DOT 412 cargo tank motor vehicles".

b. In paragraph (e)(3), the introductory text and paragraphs (e)(3)(i) through (e)(3)(iii) are redesignated as paragraphs (e)(3)(i) introductory text and (e)(3)(i)(A) through (e)(3)(i)(C), respectively; paragraph (e)(3)(v) is redesignated as new paragraph (e)(3)(ii); and paragraph (e)(3)(iv) is redesignated as paragraph (e)(4).

§ 173.227 [Amended]

52. In § 173.227, in paragraph (b) introductory text, in the first sentence the phrase "or 1H1 drums further packed in a 1A2 or 1H2 drum or a 6HA1 composite" is revised to read "or 1H1 drum or 6HA1 composite further packed in a 1A2 or 1H2 drum".

53. In § 173.244, the section heading is revised to read as follows:

§ 173.244 Bulk packaging for certain pyrophoric liquids (Division 4.2), dangerous when wet (Division 4.3) materials, and poisonous liquids with inhalation hazards (Division 6.1).

54. In § 173.302, paragraph (h) is revised to read as follows:

§ 173.302 Charging of cylinders with non-liquefied compressed gases.

(h) *Poisonous mixtures.* Cylinders containing mixtures meeting Division 2.3 Hazard Zone A must conform to the requirements of § 173.40 of this part.

§ 173.302 [Amended]

55. In addition, in § 173.302, in paragraph (a)(5)(iii), the reference "RR-C-901b" is corrected to read "RR-C-901c" each place it appears.

56. In § 173.304, paragraph (g) is revised to read as follows:

§ 173.304 Charging of cylinders with liquefied compressed gas.

(g) *Poisonous mixtures.* Cylinders containing mixtures meeting Division 2.3 Hazard Zone A must conform to the requirements of § 173.40 of this part.

§ 173.304 [Amended]

57. In addition, in § 173.304, in paragraph (f)(1), in the second sentence, the wording "packaged in Spec. 12B (§ 178.205 of this subchapter) fiberboard boxes equipped with top and bottom pads which will provide three complete thicknesses of fiberboard on top and bottom of each box, or Spec. 15A, 15B, 15C, 19A, or 19B (§ § 178.168, 178.169, 178.170, 178.190, 178.191 of this subchapter) wooden boxes" is revised to read "packaged in strong, tight packagings".

58. In § 173.314, the introductory text of paragraph (c) is revised to read as follows:

§ 173.314 Requirements for compressed gases in tank car tanks.

(c) *Authorized gases, filling limits for tank cars.* A person may load and offer a tank car containing a compressed gas

for transportation only in accordance with the following table:

§ 173.314 (Amended)

59. In addition, in § 173.314, the following changes are made:

a. In the table in § 173.314(c), for the entry "Ammonia, anhydrous, or ammonia solutions > 50 percent ammonia", in Column 2, the first "Note 21" is revised to read "Note 25".

b. In the table in § 173.314(c), for the entry "Ammonia, solutions with > 35 percent < 50 percent ammonia by mass", Column 3 is amended by adding "109A," immediately after "105A," and before "112A".

c. In the table in § 173.314(c), for the entry "Division 2.3, Hazard Zone D, materials not specifically identified in this table", in Column 2, the first "Note 21" is revised to read "Note 25"; in Column 3, "105J300W, 109A, 112J340W, 112T340W, 114J340W, 114T340W" is revised to read "105A300W, 109A, 112S340W, 114S340W"; and in Column 4, "24" is added immediately following "15".

d. In the Notes following the § 173.314(c) table, Notes 21 and 22 are revised and Note 25 is added to read as follows:

Notes:

²¹ The requirements of § 173.24(b) of this subchapter apply.

²² The requirements of § 173.245 of this subchapter apply.

²⁵ The liquefied gas must be loaded so that the outage is at least two percent of the total capacity of the tank at the reference temperature of 46 °C (115 °F) for non-insulated tanks and 41 °C (105 °F) for insulated tanks.

§ 173.315 (Amended)

60. In § 173.315, the following changes are made:

a. In paragraph (a), in the table, in Notes 3, 11, and 16, the words "comply with" are revised to read "conform to".

b. In paragraphs (d) and (i)(12), the reference "paragraph (a)(1)" is revised to read "paragraph (a)".

61. In § 173.336, the section heading and introductory text are revised to read as follows:

§ 173.336 Nitrogen dioxide, liquefied, or dinitrogen tetroxide, liquefied.

Nitrogen dioxide, liquefied, or dinitrogen tetroxide, liquefied, must be packaged in specification cylinders as follows:

PART 174—CARRIAGE BY RAIL

62. The authority citation for part 174 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1808; 49 CFR 1.53(e), 1.53(e), app. A to part 1.

§ 174.25 (Amended)

63. In § 174.25, in the paragraph (a)(2) table, for the entry "Division 1.6", in Column 3, the word "Dangerous" is removed and replaced with "(None)".

§ 174.55 (Amended)

64. In § 174.55, in paragraph (c), the wording "bearing markings THIS SIDE UP" or "THIS END UP" is revised to read "bearing package orientation markings, as prescribed in § 172.312(a) of this subchapter".

§ 174.61 (Amended)

65. In § 174.61, in paragraph (c), the wording "the Federal Railroad Administrator" is revised to read "the Associate Administrator for Safety, FRA".

66. In § 174.81, the paragraph (f) compatibility table is revised to read as follows:

§ 174.81 Segregation of hazardous materials.

(f)

COMPATIBILITY TABLE FOR CLASS 1 (EXPLOSIVE) MATERIALS.

Compatibility group	A	B	C	D	E	F	G	H	J	K	L	N	S
A		X	X	X	X	X	X	X	X	X	X	X	X
B	X		X	4	X	X	X	X	X	X	X	X	4/5
C	X	X		2	2	X	X	X	X	X	X	3	4/5
D	X	4	2		2	X	X	X	X	X	X	3	4/5
E	X	X	X	X		X	X	X	X	X	X	X	4/5
F	X	X	X	X	X		X	X	X	X	X	X	4/5
G	X	X	X	X	X	X		X	X	X	X	X	4/5
H	X	X	X	X	X	X	X		X	X	X	X	4/5
J	X	X	X	X	X	X	X	X		X	X	X	4/5
K	X	X	X	X	X	X	X	X	X		X	X	4/5
L	X	X	X	X	X	X	X	X	X	X		X	4/5
N	X	X	3	3	3	X	X	X	X	X	1		X
S	X	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	X	4/5	

§ 174.81 (Amended)

67. In addition, in § 174.81, the following changes are made:

a. In the Segregation Table in paragraph (d), in the column "Notes", for the entry "Very insensitive explosives", the letter "A" is added.

b. In paragraph (e)(5), the wording "Division 1.1 (Class A explosive) materials" is revised to read "Division 1.1 (Class A explosive) or Division 1.5 (blasting agents) materials."

§ 174.82 (Amended)

68. In § 174.82, in paragraph (a), the wording "Division 1.6," is added immediately after "contain" and before "combustible liquids".

§ 174.85 (Amended)

69. In § 174.85, in paragraph (b), the wording "must comply with train positioning requirements of paragraph (d) of this section and" is added immediately following "RADIOACTIVE".

PART 176—CARRIAGE BY VESSEL

70. The authority citation for part 176 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1805, 1808; 49 CFR 1.53, App. A to part 1.

71-72. In § 176.83, in paragraphs (c)(2)(i) (A) and (B), the text preceding the illustrations is revised to read as follows:

§ 176.83 Segregation.

(c)
(2)
(i)

(A) Package containing incompatible goods.

(B) Reference package.

§ 176.600 [Amended]

73. In paragraph (d), the wording "Division 2.3 (Poison A) material" is revised to read "Division 2.3 (poisonous gas) material" and the wording

"Division 6.1 (Poison B) material" is revised to read "Division 6.1 (poison) material".

PART 177—CARRIAGE BY PUBLIC HIGHWAY

74. The authority citation for part 177 is revised to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1805; 49 CFR part 1.

§ 177.805 [Amended]

75. Section 177.805 is amended by removing the paragraph designation (a).

76. In § 177.848, the paragraph (f) compatibility table is revised to read as follows:

§ 177.848 Segregation of hazardous materials.

(f) . . .

COMPATIBILITY TABLE FOR CLASS 1 (EXPLOSIVE) MATERIALS.

Compatibility group	A	B	C	D	E	F	G	H	J	K	L	N	S
A		X	X	X	X	X	X	X	X	X	X	X	X
B	X		X	4	X	X	X	X	X	X	X	X	X
C	X	X		2	2	X	X	X	X	X	X	3	X
D	X	4	2		2	X	X	X	X	X	X	3	X
E	X	X	2	2		X	X	X	X	X	X	3	X
F	X	X	X	X	X		X	X	X	X	X	X	X
G	X	X	X	X	X	X		X	X	X	X	X	X
H	X	X	X	X	X	X	X		X	X	X	X	X
J	X	X	X	X	X	X	X	X		X	X	X	X
K	X	X	X	X	X	X	X	X	X		X	X	X
L	X	X	X	X	X	X	X	X	X	X		X	X
N	X	X	3	3	3	X	X	X	X	X	1	X	X
S	X	X	X	X	X	X	X	X	X	X	X	X	X

§ 177.848 [Amended]

77. In addition, in § 177.848, the following changes are made:

a. In the Segregation Table in paragraph (d), in the column "Notes", for the entry "Very insensitive explosives", the letter "A" is added;

b. In paragraph (e)(5), the wording "Division 1.1 (Class A explosive) materials" is revised to read "Division 1.1 (Class A explosive) or Division 1.5 (blasting agents) materials".

PART 178—SPECIFICATIONS FOR PACKAGINGS

78. The authority citation for part 178 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1805, 1806, 1808; 49 CFR part 1.

§ 178.44-15 [Amended]

79. In § 178.44-15, paragraph (a)(2) is added and reserved.

§ 178.45-7 [Amended]

80. In § 178.45-7, paragraph (c)(2) is added and reserved.

§ 178.270-5 [Amended]

81. In § 178.270-5, in paragraph (a), the word "deka-newtons" is revised to read "decanewtons" and in paragraphs (c) and (d), the wording "deka newtons" is revised to read "decanewtons".

§ 178.337-1 [Amended]

82. In § 178.337-1, in paragraph (b), the reference "§ 173.315(a)(1)" is revised to read "§ 173.315(a)".

§ 178.337-11 [Amended]

83. In § 178.337-11, in paragraph (a)(4)(i)(B), the date "May 16, 1973" is revised to read "May 16, 1969".

§ 178.345-2 [Amended]

84. In § 178.345-2, in paragraph (a)(2), the designation "ASTM B-209 Alloy 5654" is revised to read "ASTM B-209 Alloy 5652".

85. In § 178.345-11, in the first sentence in paragraph (a), the word "exclusively" is removed, and paragraphs (b)(2) and (c) are revised to read as follows:

§ 178.345-11 Tank outlets.

(b) . . .

(2) Bottom loading outlets which discharge lading into the cargo tank through fixed internal piping above the maximum liquid level of the tank need not be equipped with a self-closing system.

(c) Any loading/unloading outlet extending beyond an internal self-closing stop-valve, or beyond the innermost external stop-valve which is part of a self-closing system, must be fitted with another stop-valve or other leak-tight closure at the end of such connection.

§ 178.345-11 [Amended]

86. In addition, in § 178.345-11, in paragraph (b)(1)(iii), the wording "Poison B liquids" is revised to read "Division 6.1 (poisonous liquid) materials".

§ 178.507 [Amended]

87. In § 178.507, in paragraph (a), the wording "ID" is revised to read "1D".

§ 178.601 [Amended]

88. In § 178.601, in paragraph (h), the reference "§§ 178.505-178.523" is revised to read "§§ 178.504-178.523".

§ 178.603 [Amended]

89. In § 178.603, in paragraph (a), the following changes are made:

a. In the text preceding the table, a new sentence is added after the first sentence to read "For other than flat drops, the center of gravity of the test packaging must be vertically over the point of impact."

b. In the paragraph (a) table, the heading of the second column is revised to read "No. of tests (samples)".

§ 178.606 [Amended]

90. In § 178.606, the following changes are made:

a. In paragraph (c)(1), three new sentences are added at the end of the paragraph to read "In guided load tests, stacking stability must be assessed after completion of the test by placing two filled packagings of the same type on the test sample. The stacked packages must

maintain their position for one hour. Plastic packagings must be cooled to ambient temperature before this stacking stability assessment."

b. The fourth sentence in paragraph (d) is removed.

Appendix B [Amended]

91. In appendix B to part 178, in the first sentence of paragraph (4), the wording "For drums, the following test may be used:" is revised to read "For other than design qualification testing, the following test may be used for metal drums."

PART 179—SPECIFICATIONS FOR TANK CARS

92. The authority citation for part 179 continues to read as follows:

Authority: 49 App. U.S.C. 1803, 1804, 1805, 1806, 1808; 49 CFR part 1, unless otherwise noted.

§ 179.101-1 [Amended]

93. In § 179.101-1, in paragraph (a), in the second table, for the entry "Minimum plate thickness, inches, shell and heads", in the column "112A200W 12", footnote 1 is removed.

§ 179.200-18 [Amended]

94. In § 179.200-18, paragraph (b)(4) is removed.

PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS

95. The authority citation for part 180 continues to read as follows:

Authority: 49 App. U.S.C. 1803; 49 CFR part 1.

§ 180.403 [Amended]

96. In § 180.403, in the definition "Corrosive to the tank/valve", the section reference "§ 173.240" is revised to read "§ 173.136".

§ 180.405 [Amended]

97. In § 180.405, in paragraph (g)(2), the wording "the hydrostatic testing requirements in § 178.354-5(b)" is revised to read "the hydrostatic testing requirements in § 178.345-5(b)".

§ 180.407 [Amended]

98. In § 180.407, paragraph (d)(2)(vii) is removed and reserved and a semicolon is added at the end of (d)(2)(viii) in place of the period.

99. In § 180.409, the introductory text of paragraph (b) is revised to read as follows:

§ 180.409 Minimum qualifications for inspectors and testers.

(b) A motor carrier or cargo tank owner who meets the requirements of paragraph (a) of this section may use an employee who is not a Registered Inspector to perform a portion of the pressure retest required by § 180.407(g). External and internal visual inspections must be accomplished by a Registered Inspector, but the hydrostatic or pneumatic pressure test, as set forth in § 180.407(g)(1)(viii) and (ix), respectively, may be done by an employee who is not a Registered Inspector provided that—

100. In § 180.413, as amended at 55 FR 37069, September 7, 1990, an error was contained in the amendatory language, which incorrectly stated that paragraph (d)(1)(v) was revised. Instead it should have stated that paragraph (d)(2)(v) was revised. Therefore, paragraph (d)(2)(v) is correctly revised to read as follows:

§ 180.413 Repair, modification, stretching, or rebarrelling of cargo tanks.

(d) * * *
(2) * * *

(v) Change the existing specification plate to reflect the cargo tank as modified, attach a supplemental specification plate noting appropriate changes that have been made to the cargo tank, or remove the existing specification plate and attach a new specification plate to the cargo tank;

101. In § 180.415, the first two sentences of paragraph (b) are removed and three new sentences are added in their place and the last sentence in paragraph (c) is revised to read as follows:

§ 180.415 Test and inspection markings.

(b) Each cargo tank must be durably and legibly marked, in English, with the date (month and year) and the type of test or inspection performed. The date must be readily identifiable with the applicable test or inspection. The marking must be in letters and numbers at least 32 mm (1.25 inches) high, on the tank shell near the specification plate or anywhere on the front head.

(c) * * * For a cargo tank motor vehicle composed of multiple cargo tanks constructed to different specifications, which are tested and inspected at different intervals, the test and inspection markings must appear in the order of the cargo tank's corresponding location, from front to rear.

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Douglas B. Ham,
Acting Administrator, Research and Special Programs Administration

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